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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/701,146	11/04/2003	Frank C. Smith JR.	50121	4832
22929	7590	07/13/2009		
SHAPER ILER LLP 1800 WEST LOOP SOUTH SUITE 1450 HOUSTON, TX 77027			EXAMINER DINH, TEN QUANG	
			ART UNIT 3644	PAPER NUMBER
			MAIL DATE 07/13/2009	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/701,146

**Applicant(s)**

SMITH, FRANK C.

**Examiner**

Tien Dinh

**Art Unit**

3644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 March 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date 3/18/09
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-12 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 1 and 11 are misleading in that applicant claims that there is "a two-surface canard having two and only two significant horizontal lifting surfaces, with a smaller lifting surface in front of a larger lifting surface." . A canard is defined as "one of two small lifting wings located in front of the main wings". The two-surface canard does NOT have two and only two significant horizontal lifting surfaces, with a smaller lifting surface in front of a larger lifting surface. The larger lifting surface is the wing 14 and the two-surface canard is numbered 12.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-6 and 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rutan 4641800 in view of Rutan ATTT.

Rutan discloses that canards with pitch control surfaces on an aircraft with no empennages and two significant horizontal surfaces are well known in the art. Rutan lacks the door at the rear of the fuselage. Rutan ATTT does teach using a door at the rear of the fuselage.

It would have been obvious to one skilled in the art at the time the invention was made to have used doors at the end of the fuselage in Rutan's system as taught by Rutan ATTT to easily load cargos.

RE amended claims 1 and 11, the motorcycle, patient on a gurney and a man in a wheelchair is merely intended use and carries no patentable weight. Plus, a "motorcycle, patient on a gurney and a man in a wheelchair" comes in many sizes. In addition, a weight limit of 5000 pounds and a hp limit of up to 500 hp is a design choice that one skilled would have chosen to have optimized the desired mission of the aircraft. A change in the size of the aircraft that results in the weight limit of 5000 and a change in the engine volume with a hp limit of 500 is within the level of ordinary skill in the art. See in re Rose, 105 USPQ 237 (CCPA 1955).

RE claim 6, the applicant has not provided any criticality of 5 feet high by 4 feet high and thus is merely a design choice. In fact, applicant has stated on page 3 line 29 of the specification

that "10' x 5' x 4'" is not necessary to the design. Applicant seems to admit that the dimension is a design choice.

In addition, where a claimed improvement on a device or apparatus is no more than "the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for improvement," the claim is unpatentable under 35 U.S.C. 103(a). *Ex Parte Smith*, 83 USPQ2d 1509, 1518-19 (BPAI, 2007) (citing *KSR v. Teleflex*, 127 S.Ct. 1727, 1740, 82 USPQ2d 1385, 1396 (2007)). Accordingly Applicant claims a combination that only unites old elements with no change in the respective functions of those old elements, and the combination of those elements yields predictable results; absent evidence that the modifications necessary to effect the combination of elements is uniquely challenging or difficult for one of ordinary skill in the art, the claim is unpatentable as obvious under 35 U.S.C. 103(a). *Ex Parte Smith*, 83 USPQ2d at 1518-19 (BPAI, 2007) (citing *KSR*, 127 S.Ct. at 1740, 82 USPQ2d at 1396). Accordingly, since the applicant[s] have submitted no persuasive evidence that the combination of the above elements is uniquely challenging or difficult for one of ordinary skill in the art, the claim is unpatentable as obvious under 35 U.S.C. 103(a) because it is no more than the predictable use of prior art elements according to their established functions resulting in the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for improvement. The rear door of Rutan's aircraft as modified by Rutan ATTT does indeed allow "large" objects to be loaded through the "large opening", which in this case can be at least 4 feet by 3 feet.

Re claim 8, please note that the two engines 18 of Rutan are on the larger lifting surface.

Claims 2 and 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rutan 4641800 in view of Rutan ATTT as applied to claim 1 above, and further in view of Burnelli 1987050.

The examiner believes that Rutan has yaw control surfaces the larger lifting surface but in order to definitively show that yaw control surfaces on a larger lifting surface, the examiner brings forth Burnelli 1987050 to show that such claimed elements (number 14) are well known. Therefore, claims 2 and 12 are rejected by Rutan in view of Rutan ATTT and further in view of Burnelli. One skilled in the art would have used the yaw control surfaces for increased maneuverability.

Re claim 12, the power sources 18 and yaw control surfaces (as taught by Burnelli and used to modified Rutan's aircraft) on Rutan's aircraft are as forward as the larger lifting surface since they are on the larger lifting surface.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rutan 4641800 as modified by Rutan ATTT as applied to claim 1 above, and further in view of admitted prior art that successful testing of a canard aircraft with a single tractor engine that was witnessed.

Rutan 4641800 as modified by Rutan ATTT discloses all claimed parts except for the tractor engine. However, the admitted prior art that tractor engines are well known in the art.

It would have been obvious to one skilled in the art at the time the invention was made to have used a tractor engine in Rutan 4641800's system as modified by Rutan ATTT and as taught by the admitted prior art to have the predictable result of more efficient thrust production.

### ***Response to Arguments***

Applicant has tried to argue that vertical fin 26 is somehow located at the aft end of the fuselage so as to disqualify Rutan '800 as the primary reference. Applicant believes that since Rutan '800 stated that "winglets 20 extend vertically and provide directional stability that this is customarily a function of a vertical stabilizer located amidships on the aft end of the fuselage as a part of the empennage group", this "broaden" the definition of amidship. Firstly, Rutan '800 is talking about the winglets, which is not the vertical fin. Secondly, Rutan '800 talks about an empennage group that he is NOT using. Even Rutan mentioned that empennage is eliminated. See the first paragraph of "Detailed Description." Thirdly, amidship is commonly defined as "located in the middle part of a ship or aircraft." He desired to use "Whitcomb-type" winglets instead. The winglets are not empennages.

As for the "The Prior Art Teaches Away- in Two Senses", the examiner disagrees. Rutan '800 teaches an aircraft with canards and no empennage. Rutan ATTT does teach using a door at the rear of the fuselage.

It would have been obvious to one skilled in the art at the time the invention was made to have used doors at the end of the fuselage in Rutan's system as taught by Rutan ATTT to easily load cargos.

In regards to "Aircraft Design Not a Predictable Art" and "Uniquely Challenging or Difficult", the examiner believes that applicant is providing his opinion on why designing an aircraft is hard or difficult. Applicant argues that it is challenging or difficult to devise a door for the tapered fuselage of Rutan '800 or accommodating a motorcycle, wheelchairs, etc. and hence it is not obvious to modify Rutan '800 with Rutan ATTT. Something that is considered difficult by the applicant does not make the combination unobvious. The combination of Rutan '800 with Rutan ATTT is obvious and valid.

The examiner has dropped the rejection by Wallis.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.



Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tien Dinh whose telephone number is 571-272-6899. The examiner can normally be reached on 12-8.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Mansen can be reached on 571-272-6608. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tien Dinh/  
Primary Examiner, Art Unit 3644